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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/919,221 | 07/31/2001 | Danny C. Vogel | 5201-23900 01-138 | 4596 |

7590

07/12/2005

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| EXAMINER |
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BLOUNT, STEVEN

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| ART UNIT | PAPER NUMBER |
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2661

DATE MAILED: 07/12/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|-------------------------------|---------------------------------|--|
| Office Action Summary | Application No. 09/919,221 | Applicant(s) VOGEL, DANNY C. | |
| | Examiner Steven Blount | Art Unit 2661 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 July 2001.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 - 25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 - 11, 18 - 22, 24 - 25 is/are rejected.
- 7) ☒ Claim(s) 12 - 17 and 23 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1 – 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. patent 6,888,825 to Liu in view of U.S. patent 6,049,540 to Chrin et al.

Liu teaches data streams 1, 2, ...k (see fig 2, area near buffer 11) which have the data sequentially placed into buffers 110 (see figure 1) wherein multiplexors select bits from any of the shift registers (see the connection dots in figure 1) and then insert them into output lines 1, ...k which connect to LC100A, LC100B, ... as shown in figure 1, wherein these streams are ultimately fed along a data line to line card 100J, as shown at the bottom of figure 2.

Liu does not, however, specifically define the buffers to be “shift registers” per se (although applicant apparently does not make the distinction between shift registers and buffers – see page 22 line 15).

Chrin et al teaches a similar system wherein shift registers are used. See figure 5, S11 – 1.

It would have been obvious to one of ordinary skill in the art at the time of the invention to have used shift registers in Liu in light of the teachings of Chrin et al in

Art Unit: 2661

order to provide an effective means for presenting the data to the multiplexors for the process of time slot interchange (col 3 line 50).

With regard to claim 2, TDM is mentioned in col 1 line 26.

With regard to claim 3, a plurality of multiplexors and synchronous clock action is taught in Liu.

With regard to claim 4, 2 is an obvious variation of the multiple number of shift registers.

With regard to claim 5, the TSI operation claimed is inherent in the process taught in Liu.

With regard to claims 6 – 9, see the rejections above.

3. Claims 10 – 11, and 18 - 22 are rejected under 35 U.S.C. 103(a) as being obvious over U.S. patent 6,785,261 to Schuster et al in view of U.S. patent 5,581,790 to Sefidvash.

With regard to claim 10, Schuster et al teaches problems inherent in a packetized telephony network wherein where there is corrupted or missing data, and presents a solution to this problem which comprises replacing the correct data in the correct location in the buffer which contains the said corrupted or missing data. Schuster et al does not however teach comparing *signal bits* utilizing a *comparison register*, and notifying a DSP prior to the replacement.

Sefidvash teaches comparing an *error detection code* (ie, signal bits) using a *comparison register* (register 14, col 7 lines 5+ and col 7 lines 48+ and col 8 lines 23+) and if parity is not found, the control processor is interrupted (col 8 lines 65+).

It would have been obvious to one of ordinary skill in the art at the time of the invention to have provided proper error correction for signal bits in Schuster et al through the use of a comparison register and comparator, in light of the teachings of Sefidvash, in order to place less stress on the DSP in a changing environment.

With regard to claim 11, note the use of multiple protocol controller busses 6 in col 5 lines 45+.

With regard to claims 18 - 19, see the rejection of claims 10 – 11 above.

With regard to claim 20, there are multiple input voice channels in Schuster et al.

With regard to claim 21, it would be obvious to use a plurality of input registers
14.

With regard to claim 22, see col 8 lines 65+ of Sefidvash.

4. Claims 24 – 25 are rejected under 35 U.S.C. 103(a) as being obvious over U.S. patent 5,497,373 to Hulen et al in view of U.S. patent 5,999,529 to Bernstein et al.

With regard to claim 24, Hulen et al teach processors 24 – 34, and TSI 20, but do not teach the internal circuitry necessary to process packets in an ATM mode, including a pcp and sar.

Bernstein et al teach a TSI operable in an ATM environment, which includes the use of an equivalent of a pcp (230, see col 4 line 25) and the equivalent of a sar (450 col 4, lines 40+).

It would have been obvious to one of ordinary skill in the art at the time of the invention to have provided Hulen et al with a pcp and sar, in light of the teachings of Bernstein et al, in order to provide a means for communicating with a plurality of DSP's

Art Unit: 2661

In an ATM system over a TSI.


5. Claims 12 – 17 and 23 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form to include the limitations of the base claim and any intervening claims.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steven Blount whose telephone number is 571 - 272 - 3071. The examiner can normally be reached on M-F 9:00 - 5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Chau Nguyen, can be reached on 571 – 272 - 3126. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Ajit Patel
Primary Examiner

SB

6/25/05